REMARKS

Favorable reconsideration of this application in light of the above amendments and the following remarks is respectfully requested.

Claims 1-8 are pending within this application. Claims 9-20 are withdrawn from further consideration incident to a restriction requirement previously imposed within this application. The restriction requirement is now made FINAL. No claims have been allowed.

Applicant includes herewith a legible copy of FR 1,349,336, in an effort to secure compliance with 37 C.F.R. 1.98(a)(2) and 37 C.F.R. 1.98(a)(3), for which the Examiner asserts that applicant's information disclosure submission filed April 13, 2006 is non-compliant. Applicant believes that the Examiner has erroneously cited FR 1,349,843 as non-compliant with 37 C.F.R. 1.98(a)(3), since applicant is not aware that FR 1,394,843 was cited in the April 13, 2006 information disclosure statement, but rather only FR 1,349,336. FR 1,349,336 appears pertinent to the instant application insofar as that particular reference appears to be a counterpart to Robb et al., USP 3,146,075, over which claims to this application are rejected, below.

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Langley (USP 4,847,393).

Claims 1-2, 4-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Robb et al. (USP 3,146,075; hereinafter "Robb").

Claims 1, 3-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langley in view of Ozero et al (USP 4,921,681; hereinafter "Ozero") or Sawada et al. (USP 5,292,904; hereinafter "Swada").

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatntable over Langley in view of Sapoff (USP 5,114,685).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langley in view of Robb.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robb in view of Groll et al. (USP 2,042,220; hereinafter "Groll") and Clark et al. (USP 2,383,711; hereinafter "Clark").

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robb in view of Sapoff.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robb.

As an initial consideration, "[a] claim is anticipated [under 35 U.S.C. 102] only if each and every element set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131 (citing *Verdegaal Bros. v. Union Oil of Calfornia* (citation omitted)). Thus, anticipation requires a clear disclosure within a single prior art reference of all limitations or elements of an applicant's claimed invention.

In addition, for an Examiner to properly reject an applicant's claims to the applicant's invention under 35 U.S.C. 103 over a single prior art reference or a combination of prior art references, a prima facie case of obviousness must be established with respect to the single prior art reference, or the combination of prior art references.

The prima facie case of obviousness consists of three criteria that include: (1) a suggestion or motivation to modify or combine the reference or references; (2) a reasonable expectation of success that the reference or references when modified or combined will provide the applicant's claimed invention; and (3) a showing that the prior art reference or references when combined teach or suggest all of the applicant's claim limitations. MPEP 2142, 2143.

Finally, within the context of basic considerations applicable to any obviousness rejection under 35 U.S.C. 103: (1) an applicant's particular "claimed invention must be considered as a whole"; and (2) when rejecting claims to the applicant's particular claimed invention under 35 U.S.C. 103, any particular "prior art must be considered in its entirety, including disclosures that teach away from the [applicant's] claims." MPEP 2141, 2141.02.

In response in a first instance, applicant has amended claim 1 to incorporate therein the limitations that: (1) applicant's exchanger tubes within applicant's tubular heat exchanger do not penetrate into applicant's tubular reactor to which is affixed the tubular heat exchanger; and (2) the tubular heat exchanger is coaxially affixed to the tubular reactor. Support for both of the foregoing limitations newly incorporated into claim 1 is found within the specification as newly amended at page 3, between line 6 and line 7, which in turn finds clear and unambiguous support within FIG. 1 as originally filed. Additional support for the tubular exchanger tubes not penetrating into the tubular reactor is also found within the specification at page 4, line 6, wherein applicant teaches that "cooling in the [applicant's exchanger] tubes 8 is independent of the operation conditions of [applicant's tubular] reactor 1." Applicant thus believes that applicant's

particular claimed configuration of applicant's reactor and heat exchanger assembly provides an optimized configuration for rapid cooling of reaction products while maintaining independence of tubular reactor conditions from heat exchanger conditions.

In comparison with claim 1 as newly amended, the alleged anticipatory reference Langley at the sole figure therein fails to teach a coaxial attachment or affixation of Langley's reactor 1 with Langley's heat exchanger 11. Rather, Langley's reactor 1 and Langley's heat exchanger 11 as illustrated at the sole figure therein are connected using a U shaped pipe 10. In addition, applicant also observes that the alleged anticipatory reference Robb fails to teach absence of penetration of Robb's tubular exchanger tubes 26 into Robb's tubular reactor 10. Rather, Robb at FIG. 1 teaches tubular exchanger tubes 26 that clearly penetrate into the tubular reactor 10. For this particular reason of Robb's teaching of tubular exchanger tubes 26 that penetrate into tubular reactor 10, the applied reference apparently teaches away from the claimed invention.

Applicant also observes that none of the remaining references relied upon within the context of the above cited 35 U.S.C. 103 rejections teaches a particular disposition of a tubular heat exchanger with a tubular reactor within the context of an integrated reactor and heat exchanger cooler assembly in accordance with applicant's claimed reactor and heat exchanger cooler assembly. More particularly, applicant notes that each of Ozero, Sawada and Sapoff at their respective cover figures does in fact teach a tubular reactor apparatus that may be applicable to ethylene oxide production. However, not one of Ozero, Sawada or Sapoff at their cover figure teaches a tubular heat exchanger (or any other type of heat exchanger) affixed thereto or connected thereto. In addition, each of Clark and Groll, while cited for teaching particular catalysts that may be used within

catalytic reactions undertaken within a reactor that might plausible be a tubular reactor, does not teach any characteristics of the reactor or an exchanger affixed thereto or connected therewith.

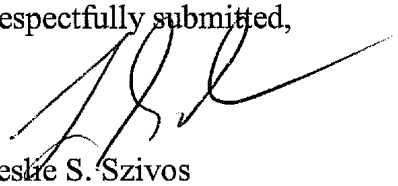
Thus, since each and every limitation within applicant's invention as disclosed and claimed in claim 1 is not taught within: (1) either Langley or Robb individually; or (2) either one of Langley or Robb in combination with any other cited reference or combination of cited references (i.e., other than Langley and Robb together), with respect to a reactor and heat exchanger cooler assembly that are coaxially attached absent tubular heat exchanger tubes within a tubular exchanger component of the reactor and heat exchanger cooler assembly penetrating into a reactor that comprises a reactor component of the reactor and heat exchanger cooler assembly, applicant asserts that claim 1 may not properly be rejected: (1) under 35 U.S.C. 102(b) as being anticipated by either one of Langley or Robb individually; (2) under 35 U.S.C. 103(a) as being unpatentable over either one of Langley or Robb individually; or (3) under 35 U.S.C.103(a) as being unpatentable over either one of Langley or Robb individually in conjunction with any other above cited references. Since all remaining claims within all of the 35 U.S.C. 102(b) and 35 U.S.C. 103(a) claim rejections are dependent upon claim 1 and carry all of the limitations of claim 1, applicant also asserts that those remaining claims may not properly be rejected: (1) under 35 U.S.C. 102(b) as being anticipated by Langley or Robb individually; (2) under 35 U.S.C. 103(a) as being unpatentable over Langley or Robb individually; or (3) under 35 U.S.C. 103(a) as being unpatentable over either one of Langley or Robb individually, further in view of any combination of the above cited references.

With regard to the Examiner's rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over Langley in view of Robb, applicant specifically asserts, in accordance with the above analysis, that there exists no suggestion or motivation for modification or combination of Langley with Robb. In that regard, applicant observes that Robb, when viewed as a whole, teaches away from applicant's claimed invention (i.e., Robb teaches heat exchanger tubes 26 that penetrate into the reactor 10, while applicant discloses and claims heat exchanger tubes 8 that do not penetrate into the reactor 1). Since Robb in pertinent part teaches away from applicant's claimed invention, applicant as a result thereof asserts that there exists no suggestion or motivation for modification or combination of Langley with Robb. As a further result thereof, applicant thus also asserts that none of applicant's claims may properly be rejected under 35 U.S.C. 103 as being unpatentable over Langley in view of Robb. See MPEP 2141.02.

In light of the foregoing responses, applicant respectfully requests that the Examiner's rejections of: (1) claims 1 and 3-5 under 35 U.S.C. 102(b) as being anticipated by Langley; (2) claims 1-2, 4-5 and 7 under 35 U.S.C. 102(b) as being anticipated by Robb et al.; (3) claims 1, 3-5 and 7-8 under 35 U.S.C. 103(a) as being unpatentable over Langley; (4) claim 2 under 35 U.S.C. 103(a) as being unpatentable over Langley in view of Ozero or Sawada; (5) claim 6 under 35 U.S.C. 103(a) as being unpatntable over Langley in view of Sapoff; (6) claim 7 under 35 U.S.C. 103(a) as being unpatentable over Langley in view of Robb; (7) claim 3 under 35 U.S.C. 103(a) as being unpatentable over Robb in view of Groll and Clark; (8) claim 6 under 35 U.S.C. 103(a) as being unpatentable over Robb in view of Sapoff; and (9) claim 8 under 35 U.S.C. 103(a) as being unpatentable over Robb, be withdrawn.

In view of the foregoing remarks, applicant respectfully requests favorable reconsideration and allowance of the claims within this application.

Respectfully submitted,



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